Triage Roundtable
1/20/2020

Assessment
Considering a piano that has been neglected for many years, what can we do to make it work well in a day or less? After asking the customer about any issues that bother the customer over the phone, raise the question again when arriving. Look at the piano with the customer watching and point out what you see. Describe the procedure to fix everything and give prices. When thinking of triage, where do we get the best bang for the buck? We're not trying to rebuild the piano finely; we're just trying to get it into better shape. Write down the items that need attention, then derive the order in which tasks should be done.

Pitch-raising
When approaching tuning in vertical pianos, frequently they are flat by twenty cents. Tighten the pressure bar to raise the pitch. Slightly loosen each screw first to see if the screw will break before slightly tightening it. Do the same amount of turn on each screw.

Roger has a technique to raise pitch quietly. Generally, 20 cents flat is common with old pianos. There will be dust on the strings, and sometimes even corrosion or rust. First, tune all center strings with a device. Tune one octave to get a feel for how much to move the tuning hammer. Then, without playing the notes, take the top row and turn those pins how much you think will match what has been tuned. Treble strings are tuned much less than the lower strings. When bringing it up 10-15 cents, sometimes Roger will skip a few notes to equalize the tension. Once all the center strings are done, tune the unisons.

If two or three strings break within two or three minutes, stop and give the customer options. It might be that all the strings will start to break. Choices: restring, replace the piano.

Lost motion
Destroyed butts cause lost motion. Maintain the capstans adjusted well to preserve the butt leathers. Do rail adjustments to batch-adjust sticker lost motion. Getting the let-off too close will put the jack in a new spot. Butts settle a lot. Provide enough room with escapement so there is room to move but not so much that the hammer baubles.

The blocking rail is screwed onto the action bracket and has a little adjustment on each section so it can be slid in and out. Instead of setting the let-off, set the blocking so the hammers don't come too close.

Loose tuning pins
Mark the loose pins with chalk. Tapping loose pins into the pin block will give enough grip to improve the tightness of the pin. On grands, a light tap can be done without supporting the pin block when taking the pin down a millimeter. Of course, it is always better to support the pin block.

Key dip
Shim the key bed to gang adjust. Cardboard, front rail punchings, or business cards serve as good shims. Put a shim on each side of each key bed screw. Lower the travel or the resting point of the key; the capstans will cause the jack to attack the whippen at the wrong angle, which might cause action dampening. If the attack is improper, the travel on the whippen will be lost.

Pedals
Get the shanks off the rest rail or there won't be any touch or dip. Make sure the shift pedal goes back. The damper pedal must work. Eliminate pedal noises. It's easy to turn up the pedal rod for lost motion, but it's the shimming at the pitman that needs work. The pitman is where most of the lost motion occurs. Sometimes adding felt in the pedal box is necessary. Make sure the lyre is secure.

Worn hammers
If there is no time to fully shape a set of hammers:

- excess felt can be peeled off with a sharp knife or razor blade.
- A Dremmel tool is quick.
- Use a wide paddle with coarse paper.

False beats
Roger's first point of attack:

1. Tap the string down
2. CA glue is most effective (not on speaking length)
3. Bend the wire around the pin with Roger's tool
4. Lightly tap the bridge pin
5. Replace the string
    a. Sometimes a new string will fall into the same grooves as the old string
    b. Use the wire twisting tool around the pins
6. Ed uses a strobe to stop the vibrating rate of the string visually.

Center pins
Check the center pins on Renner actions because they tend to work themselves out. Ed thinks they don't drill the bird's eye hole correctly.

Good Old Pianos
Steinway: good grands, horrible uprights
Bush & Lane
Ivers & Pond
Baldwin

Strike point scaling
Ed talked at length about shallow strike points, like Brambach.

Plastic parts
The old style of plastic parts are so brittle at this point in history that they crumble.

Grand action shift
A quick way to re-align the hammer strike points is to adjusting the entire action by shimming the left side.
Steve inserts a business card on the left side of the action to fine-adjust the voicing.

Steve got an emergency call to fix a Russian piano on a ship for a concert. They had no money but would give him a case of beer; he doesn't drink beer, but he has a good heart. He walked up gang plank and the sailors spoke only Russian. The lady took him through the innards of the ship to a little auditorium. It turned out that the upright didn't even play at all. The action was not even fastened to the action brackets properly. He installed some action bracket nuts and adjusted the lost motion. The tuning was atrocious, and a sailor was watching him. He pulled up the pitch, feeling the sailor's beedy eyes on him the whole time. When he finished, he picked up his tools, turned around, and discovered that the sailor was sound asleep. Steve never got his beer.

Joe went to tune a piano for no money. The piano was rusty and corroded. He tuned and fixed it for free and learned that the piano was still so bad that they ended up using an electric keyboard.

Roger called Pianotek for a hypo-oiler. They said you can't use the thin CA glue in those bottles because it will start smoking because the glue reacts with the soft plastic. Using an oiler with CA glue must also be single use. The needle is not small enough for bridge pin work. Compared to the square bottles, a round shape is better for holding. The tiny tubes can be changed in the lids.

Gluing key tops
PVCE glue is easy to remove if you get it on the surface of a key top. PVCE glue is no longer available from the piano supply houses; Rue Glue is their substitute. Rue Glue contains an active solvent that will etch the surface of a plastic key top: it won't come off. Roger puts the glue on the stick, puts the key-top on and uses his fingers to apply pressure (clamping will make it creep). Work time is about three minutes. Constantly clean your fingers with a damp cloth.

There are different ways to remove excess keytops from the sides of the keys:

- Router
- Sander
- Hand file
- Table saw with jig stop

String limits
Piano wires do not stretch once they are up to pitch. Once it is beyond the elastic limit, a string will stretch and ultimately will break. High carbon steel is unbendable, whereas regular wire is bendable. There is a bend at the tuning pin, the V-bar, the bridge pins, the hitch pin. Once you have put a bend in a wire, you have exceeded the elastic limit. Once a bend is fully formed, it becomes permanent. A bend in the wire is not past the elastic limit yet; it's a permanent bend and won't break. However, when you have exceeded the elastic limit in tension, that's when the string is liable to break.